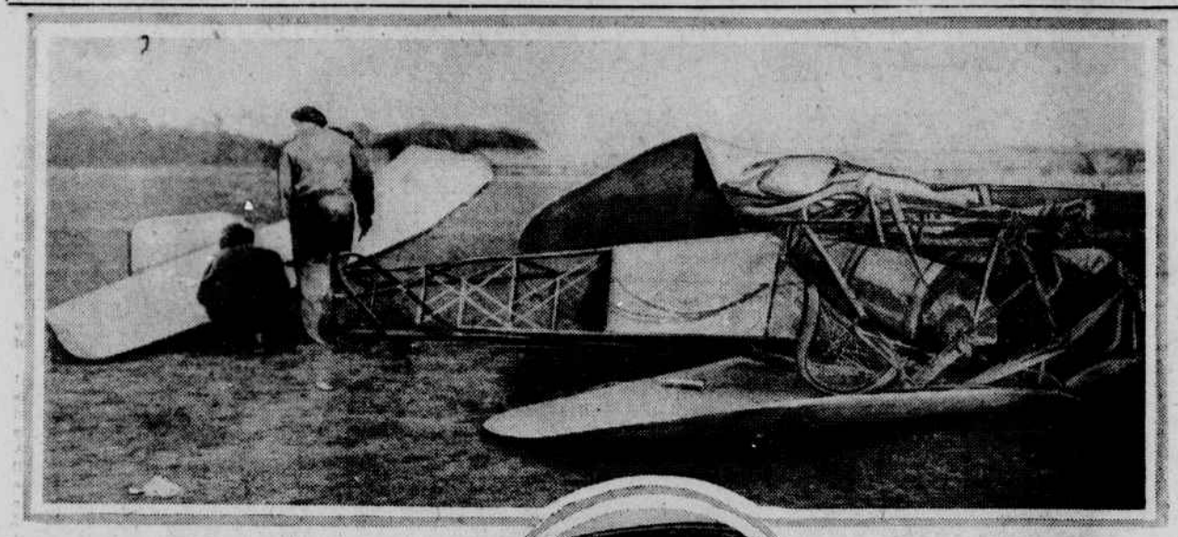
DEATH THE CERTAIN FATE OF STUNTING AVIATORS

Wreck of Moisant's plane caused by wings breaking in a sharp bank. Below is a portrait of Ormer C. Locklear, who took up stunt flying after his army service. His machine entered a fatal tailspin.



Their End So Inevitable That Legislation Is Planned to Prevent Hair Raising Feats---Hoxsey, Beachey, Locklear, Laura Bromwell and Harriet Quimby Only a Few of the Host That Have Crashed

By RICHARD H. WATKINS.

THE easiest way to count "stunt" fliers is to count their tombstones. This is, of course, a radical statement, but it is almost literally true. The cleverest flier who ever lived was not clever enough to last long at the aerobatic game, as a survey of the death roll in aviation proves.

The stunt flier in the old days of flying—not ten years ago—was a miracle man, a superhuman being without the nerves or mortality of mankind, an Achilles without a heel—until he crashed. During the war he was a hero, an adventurer of the air, flying through a storm of shrapnel, flaming onions, machine gun bullets and archy fire, and dropping in flames to earth with his gun still roaring gallantly. But now he has become merely a nuisance, and, like other nuisances, he is being legislated against.

It is possible to account with almost mathematical precision for the stunt fliers of yesteryear. There is, of course, a 1921 crop who are still at the zenith, but the nadir is not far off. The stunt fliers who thrilled the crowds years or months ago are underground.

Hoxsey, Beachey, Locklear—all are dead. But so, you may say, are all the other early aviators and many of those of the present day. No so. It is true that many a flier dropped to death in the flimsy machines of a decade or more ago; it is equally true that once in a great while we read of the death of a flier who was flying and not stunting, but the proportion is about the same as the mortality of grade crossing speculators and race drivers as compared with cautious motorists.

Wrights Took Greatest Chance With First Practical Plane

The Wright brothers were early fliers—the men who took the biggest chance of all when, in 1903, they ventured off the ground in a flimsy kite, propelled by a 16 horsepower, coughing, jerky motor. Wilbur died in bed and Orville is still active in the aeronautical industry. Glenn Curtiss was an early flier, and held many of the early records, but he never forgot that he was a man and not an angel. He is still alive and one of the biggest figures in aviation to-day. Louis Bleriot still lives in France and builds planes and automobiles. Dozens of others flew bravely and well, yet lived.

As a matter of fact, there are two kinds of airmen, the sons of Icarus and the sons of Daedalus. Daedalus and his son Icarus, it may be recalled, were imprisoned some two generations before the Trojan war. Daedalus invented wings and fastened them on himself and Icarus with wax. They flew away from their captors. Icarus, however, was a stunt flier. He flew so high the sun melted the wax on his wings and left him "out of luck" thousands of feet above what was named the Icarian Sea in his memory. Daedalus, the inventor, flew low and reached land in safety.

Since then the exponents of the Daedalian school of thought have been building planes and flying them safely, and the followers of the Icarian school of action have been stunting them and dying.

The most severe critics of the stunt fliers are the engineers, the manufacturers and the great bulk of the now large brotherhood of pilots. These men realize that not even an eagle could perform the evolutions that some of the stunt fliers "get away with"—for a time.

Up in the quarters of the Aero Club of America, in rooms decorated with the trophies of men who went down in the effort to make flying a thing of real benefit to man, or who are still carrying on, pilots, engineers and builders of planes gather frequently, as they have for years, to discuss the latest "ships" and the latest achievements of the game. One other thing they are discussing now, the abolition of stunt flying. Too many men have flashed downward to death in good planes mistreated beyond the limit of strength of steel and wood and linen.

Best Pilot in the Country Surely Doomed to Death

Calmly, but somewhat regretfully, they speak of a pilot who may be even now trying out his motor for his last flight at Mineola. In their opinion this man is the cleverest flier in this country. He is master of the tailspin, the barrel roll, the Immelman, the nose dive, the loop and all the other stunts. But, in their opinion, he is doomed to death more certainly than if he were awaiting execution at Sing Sing or in the last stages of incurable disease.

It is not a nice thing to hear pilots speak admiringly of this man's skill, yet to realize the positiveness of their conviction that he is soon to die. The pilot in question is much liked. His service in the war was distinguished, he has done much of note in post war flying and he is personally of a very happy disposition.

But he is fond of throwing his plane around in the air at low altitudes. It amuses him. No amount of advice, of warning, of exhortation will dissuade him. And stunt flying just above the ground, even by the most skilful pilot and in the stoutest plane that ever flew, is surely fatal. A little too much stress on a wing, the slightest error in judgment, a bit of carelessness on the part of a mechanic, and there is a sudden, swift thrust of death.

The writer can testify to the distressingly accurate foresight of fliers in this matter. One day in May, 1919, some of the naval officers of the NC Division, then preparing to leave Rockaway Naval Air Station for the flight across the Atlantic, and some newspaper men were standing near the post headquarters watching an HS flying boat which was out over Jamaica Bay.

The boat, with motor thundering at full throttle, was not flying; it was fairly spinning through the air at an altitude of two or three hundred feet, in a series of practically vertical banks. The wings were straight up and down at times, but each natural slip of the heavy boat toward earth was skilfully prevented by the pilot by a lessening of the steepness of the bank. Around and around it spun, gradually drifting toward land.

"Hughey Adams is the best pilot on the station," one of the officers, who had been watching with absorbed attention, remarked quietly. "But I'm afraid he isn't going to be with us very much longer."

Slipped Just a Little Too Far, Then Came the Fatal Crash

The stunting seaplane continued its evolutions. The NC pilots continued to watch. This itself was a bad sign, for flying was too common to attract attention normally at Rockaway. Suddenly the plane slid a little further than usual. Then, swift as a striking snake, it plunged downward. It struck nose first on top of the hydrogen tank of the station. Ensign Hugh Adams, star pilot of Rockaway, and his mechanic, Chief Machinist's Mate H. B. Corey, died instantly.

It was an occurrence which has had its counterpart at most of the fields of this country and at many of the flying meets. A dozen different theories—motor failure, control failure, air hole above the hydrogen tank, sudden illness of the pilot, etc.—were advanced, but the fact of stunting at a low altitude remained.

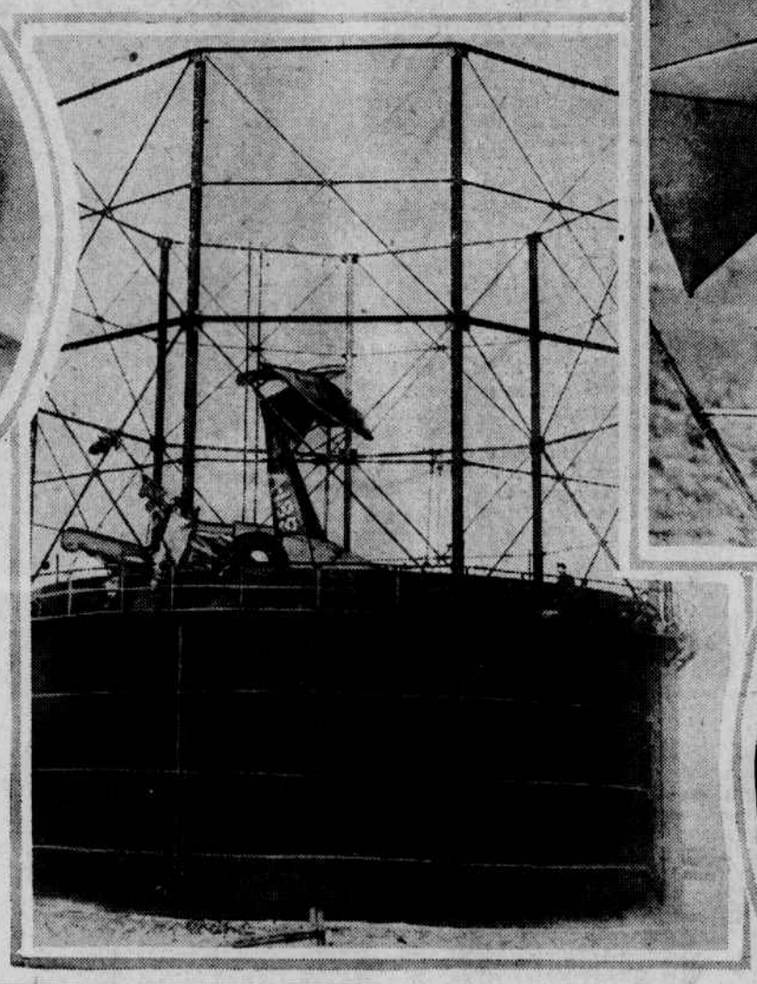
The main objection to stunt fliers at the present time is not that they kill themselves and occasionally a few spectators or passengers, but that every time a plane, wrecked and disabled by the terrific stress it had been put to, plunged to the ground thousands of people are convinced that aviation is a game for daredevils and not the greatest factor in transportation since the invention of the locomotive. The stunt flier makes enemies for aviation and retards its development.

The reason why the stunt flier loses invariably in his interesting gamble with the air is the fact that the laws of physics remain immutable, while his own daring and skill increase. After a time a drop of 1,000 feet nose down ceases to thrill. So he tries a drop of 2,000 feet, and keeps on increasing the distance until the laws of gravity and the laws of tensile strength of wings are overstepped.

Then he loses.

And he may win a thousand times; it takes only one loss to even things up.

The death of Lincoln Beachey is an interesting illustration of the fact that skill may prolong the life of a stunt flier but cannot save it. On the authority of Orville Wright himself, Lincoln Beachey was one of the two natural fliers in this country. His first flight in an airplane ended in trouble, as did his last, and from the same cause—recklessness.



Above is Ensign Hugh Adams's seaplane in the gas tank at Rockaway Naval Station. Stunting at a low altitude caused the fatal tailspin. At right is the wreck of Arch Hoxsey's plane after a spiral dip.

Having prevailed upon Glenn Curtiss to let him get into a machine Beachey, instead of obeying the more experienced pilot's injunction to try out the controls on the ground, rushed his machine into the air as soon as it had flying speed. The flight ended when Beachey, having crossed the field, tried to clear a barn. The machine landed near the rooftree; Beachy continued down the other side. He should have been killed, of course; actually he merely ruined his clothes. His next plane made a forced landing in a treetop, but again he escaped.

One day he got the knack of flying and immediately began to do stunts, the stunts of those days, banks and rolls and turns. Immediately he became an exhibition flier. He had crashes about five times a year, but, despite the fact that other pilots pointed him out as one marked for sudden death, his luck and skill kept him alive for years.

In the spring of 1911 he circled the dome of the Capitol. Later that year he swept down the Niagara River in a shower of rain, flew through the mist of the Horseshoe Falls and down the Gorge, fighting the treacherous air currents that attacked his flimsy machine. He learned a "Dutch roll" and a "death dive," a vertical plunge, that thrilled thousands throughout the country.

Beachey was a hero. Other young men attempted to imitate him. Some escaped with their lives. In March, 1913, he announced that he would quit flying.

"I have defied death at every opportunity in the last two years," he said. "I have been a bad influence and the death of a number of young aviators in this country can be traced, I believe, to a desire to emulate me in my foolishly daring exploits in the air."

Beachey particularly felt the deaths of Horace Kearney, who attempted to fly over the sea from Los Angeles to San Francisco, and of Charles Welch, another pilot. For six months Beachey remained on the ground. Then his restlessness grew acute; the old yearning for the roar of a motor, the rush of air and the chest constricting thrill of a dive became too strong to be denied.

Then, too, in France Alphonse Pegoud had performed the impossible. Strapped into the seat of a Bleriot monoplane the Frenchman had looped the loop. Was Beachey, the Beachey, to remain on the ground while a Frenchman looped the loop?

At the Curtiss plant, at Hammondsport, N. Y., they built Beachey a new biplane. On his first flight he knocked two girls from the roof of a hangar, killing one of them. Beachey was not seriously hurt, but was hysterical for days. He was confined to his room and constantly watched. He never flew at Hammondsport again.

Shortly afterward, on November 24, 1913, flying at San Diego, he made his first loop. It was the first time the feat had been accomplished on this side of the Atlantic. In the spring of the next year, strapped tightly in the small seat in front of the wings of his biplane, he succeeded in flying upside down and in making several loops in succession. He cut his initials in the air, with a series of tail slides, loops and corkscrews, raced his plane against Barney Oldfield's 300 horse-power car, flew inside an exhibition building and went duck shooting in the air.

Beachey's last death dive, postponed but inevitable, came on March 14, 1915, at San Francisco. The wings of a new German monoplane gave way, after a vertical dive of 2,000 feet, and he plunged into the waters of the bay. Beachey fought hard and gamely in that last drop to save his life, but the immutable natural laws got him at last.

For Beachey, as well as for other stunt fliers of his day and before him, it must in justice be said that they did aviation some good as well as much harm. For, although they made aviation a mere circus performance, a safe and thrilling amusement for people on the ground, they also aided in making it known that men could fly, in securing aeronautical data and in blazing the trail. Foolhardy Beachey was, but he furnished much valuable information to the army and navy authorities on this new arm of war and he bitterly attacked Congress as parsimonious at a time when safer and saner fliers than he in the Signal Corps were flying—and crashing—in machines more fitted for the junk pile than the air.

In defending himself from charges of foolhardiness Beachey once said, strangely enough:

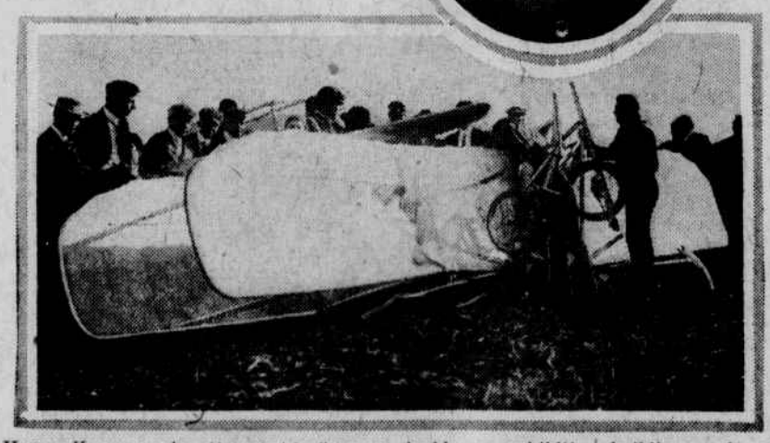
"With the knowledge we now possess there remains no danger. We have solved the mystery which has surrounded the flight of birds, have mastered the gravity of space, have acquired the genius of aviation. It requires only practice, patience and courage to master an airplane. And be careful—that's all."

Harry N. Atwood, one of the most famous of the old American cross-country fliers, whose contribution to aviation was a far sounder and more important one than that of the spectacular Beachey, said when the news of the stunt flier's death came to him:

"Beachey was a fatalist. He firmly believed that when his time came to die he would die, whether in bed or in the air. Beachey and I had many discussions about this. As I grew more careful with more experience, Beachey grew more daring."

During the war the fatalist temperament and skill in stunt flying were both more or less needed at the front, but in commercial aviation a philosophy countenancing unnecessary risks and a propensity for running wild in the air are much worse than cowardice and inexperience. The best pilot is not the man who can skim closest to a hangar in coming into a landing field, but the man who keeps farthest away from it.

Lincoln Beachey, first man to loop the loop in America. Note the frail machine. Below is Miss Laura Bromwell, who looped the loop 199 times; later her machine crashed with fatal effect.



Three famous fliers who met death before Beachey, who in their more rudimentary machines were every bit as daring, were Arch Hoxsey, Ralph Johnstone and John B. Moisant. Hoxsey and Moisant were killed on the same day, December 31, 1910, the former at Los Angeles and the latter at New Orleans.

Hoxsey and Johnstone were two of the original Wright fliers. Moisant learned to fly in France. All three men, although they were fliers who had advanced the progress of aviation, met death while indulging in stunt flying.

Johnstone, whose flying career lasted only a year, established an altitude record of 9,714 feet during the famous Belmont Park meet, in October, 1910. He was the first pilot to be killed in this country. Wilbur Wright pronounced him a fine flier, but with one weakness, he would not be beaten by any one. On the night of the flier's death Mr. Wright remarked:

"The others were not so difficult to control, but he and Arch Hoxsey kept me on the anxious seat all the time. The trouble with Johnstone was that he would not keep within the limits of safety. Instead of making a turn in ten seconds, which would be safe, he'd make it in five at the risk of his life."

Soon Followed Teammate In Fatal Spiral Dip

Arch Hoxsey, his teammate, lasted only six weeks after Johnstone's death. Hoxsey had beaten his companion's altitude achievement, attaining a height of 11,474 feet. On the day of his death he set out to beat his own record. He climbed to a height of between 7,000 and 8,000 feet. When the air conditions proved unfavorable he gave up the attempt, starting back to earth in a sweeping, graceful spiral. At about 1,000 feet he began to make spiral dips. At 500 feet he lost control of his machine and it fell like a meteor. The motor crushed the pilot.

While flying at New Orleans in preparation for the Michelin long distance trophy, Moisant, in a new 50 horsepower Bleriot machine, tried a right curve at too abrupt an inclination. At a height of 200 feet the machine got out of the pilot's control. It plunged downward, and Moisant, fighting to bring it back to a level, fell from it and dropped 100 feet. He lived only a short time.

During 1910 thirty fliers met death, a large number when the few who were flying at that time are considered. Previous to that year only ten men had met death in heavier-than-air machines. Among those who died that year were Leon Delagrange, who fell while making a turn at high speed; Hauvette-Michelin, who crashed into a pylon, and Cecil Grace, who started across the English Channel, met a fog, and perished in the sea.

The brave George Chavez in this year crossed the Alps, braving the swift currents and aerial whirlpools of mountains and valleys, flying miles across snowy peaks and rocky gorges where motor failure meant destruction in a machine so frail no pilot of to-day would touch it. Chavez crossed the Alps, flying at 7,000 feet over the Simplon Pass and over the Simplon Kulm, the high peak. He followed the road by which Napoleon crossed the Alps. On the other side, eighteen miles from Domo d'Ossola, as he was landing a gust of wind overturned his plane, crushing him beneath it. He died a few days later.

Two of the best spectacular fliers of

Continued on Following Page.

SOME OF THE MORE WIDELY KNOWN FATALITIES

Ensign Hugh Adams, killed with mechanic in tailspin while stunting at low altitude, at Rockaway naval air station.

Lincoln Beachey, killed by fall of two thousand feet in his famous "death dive" at San Francisco.

Laura Bromwell, crushed to death in her plane at Mineola while looping the loop.

Lieut. Hugh Gordon Campbell, killed while stunting at Atlantic City.

Madeleine Davis, mortally injured while attempting to jump from an automobile to airplane at Long Branch, N. J.

Milton Elliott, killed with Ormer Locklear in a night exhibition tailspin from a height of 10,000 feet.

Everett Foster, killed with passenger while stunting new machine near Revere, Mass.

Harry G. Hawker, lost control while testing new speed plane.

Arch Hoxsey, killed by spiral dip in exhibition flight at Los Angeles.

Ralph Johnstone, killed by fall of 800 feet during spiral dip at Denver.

Ormer C. Locklear, killed in exhibition tailspin with Milton Elliott while dropping 10,000 feet.

John B. Moisant, killed when machine broke wings in making sharp bank.

"Daredevil" Murphy, drowned after parachute jump from plane into sea.

Harriet Quimby, dashed 1,000 feet to death when machine was damaged in gusty air.

Capt. Bernard de Romanet, holder of world's speed record, killed when terrific speed stripped linen from wings of his machine.